

(19)



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) Publication number:

0 474 340 A3

(12)

EUROPEAN PATENT APPLICATION(21) Application number: **91306128.9**(51) Int. Cl.⁵: **G06F 9/44**(22) Date of filing: **05.07.91**(30) Priority: **14.08.90 US 567389**(43) Date of publication of application:
11.03.92 Bulletin 92/11(84) Designated Contracting States:
DE FR GB IT NL(88) Date of deferred publication of the search report:
13.01.93 Bulletin 93/02(71) Applicant: **DIGITAL EQUIPMENT CORPORATION**
111 Powdermill Road
Maynard Massachusetts 01754-1418(US)(72) Inventor: **Travis, Robert L., Jr.**

1547 Main Street
Concord, Massachusetts 01742(US)
Inventor: **Wilson, Andrew P.**
Commons Brink, Bruce Lane
Burghfield Common, Reading RG7 3DP(US)
Inventor: **Jacobson, Neal F.**
6 Cranwell Court
Nashua, New Hampshire 03062(US)
Inventor: **Renzullo, Michael J.**
7 Byron Road
Ashland, Massachusetts 01721(US)

(74) Representative: **Goodman, Christopher et al**
Eric Potter & Clarkson St. Mary's Court St.
Mary's Gate
Nottingham NG1 1LE(GB)

(54) **Methods and apparatus for providing dynamic invocation of applications in a distributed heterogeneous environment.**

(57) A method and apparatus providing for the interaction of processes in an object-oriented manner by which a system manages "classes" of data instances and applications rather than managing the data itself. The names of classes may be stored in a data base which also contains other information about the classes, such as certain common attributes of applications or instances which are supported by the classes. Applications can remotely invoke other applications by sending messages with parameters. Using the message names, as well as information about the classes of certain parameters and certain preference information, a reference to a specific method is selected from the data base. That method will perform the operation specified in the message. Other information in the data base is then used to locate and execute the actual code to implement the referenced method.

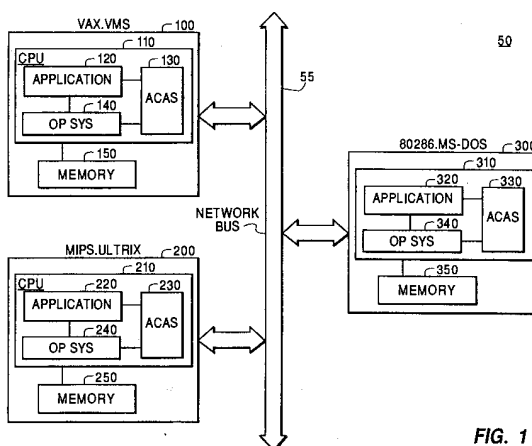


FIG. 1

EP 0 474 340 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number

EP 91 30 6128
Page 1

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
D,E	EP-A-0 474 339 (DIGITAL EQUIPMENT CORPORATION) 11 March 1992 * the whole document * ---	1-16	G06F9/44
D,E	EP-A-0 471 442 (DIGITAL EQUIPMENT CORPORATION) 19 February 1992 * the whole document * ---	1-16	
D,E	EP-A-0 472 279 (DIGITAL EQUIPMENT CORPORATION) 26 February 1992 * the whole document * ---	1-16	
A	ELECTRONIC DESIGN vol. 31, no. 26, December 1983, HASBROUCK HEIGHTS, NEW JERSEY US pages 127 - 135 BRUCE HAMILTON ET AL. 'Work-station LAN masters many operating systems' * page 127, column 1 - column 2, paragraph 1 * * page 128, column 2, paragraph 2 - page 129, column 2, paragraph 2 * * figures 1-2 * ---	1-3,6, 11-13	TECHNICAL FIELDS SEARCHED (Int. Cl.5)
A	S.C. DEWHURST ET AL. 'Programming in C++' 1989 , PRENTICE-HALL , NEW JERSEY * page 51 - page 147 * ---	1-16	G06F
P,A	COMPUTER DESIGN vol. 29, no. 17, 1 September 1990, USA pages 46 - 50 , XP151375 T.WILLIAMS 'Industry group initiates object-oriented software standards' * the whole document * --- -/--	1-16	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 05 NOVEMBER 1992	Examiner TALLOEN J.M.F.S.
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number

EP 91 30 6128

Page 2

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
A	TECHNIQUE ET SCIENCE INFORMATIQUES vol. 6, no. 2, 1987, PARIS FR pages 166 - 169 M.SHAPIRO ET AL. 'SOS: un système d'exploitation réparti fondé sur les objets' * page 167, column 1, paragraph 2 - page 169, column 1, paragraph 2 *	1-3,6,12	
P,A	J. FORGIONE ET AL. 'Response to the OMG RFI for the Object Request Broker' 15 August 1990 , DATA GENERAL CORPORATION , WESTBORO, MA, USA * the whole document *	1-16	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 05 NOVEMBER 1992	Examiner TALLOEN J.M.F.S.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	